

# **Autoliv**

*Safety For Life*

**Clean Utah Luncheon**  
**Monday, November 5, 2007**



# Autoliv History

**Autoliv Inc.**  
**1997 Merger**



## **Morton Automotive Safety Products**

Beginning in the late 1960's  
(Thiokol, later Morton  
International) pioneered airbag  
inflation technology and  
products (based on solid  
rocket motor fuel technology)

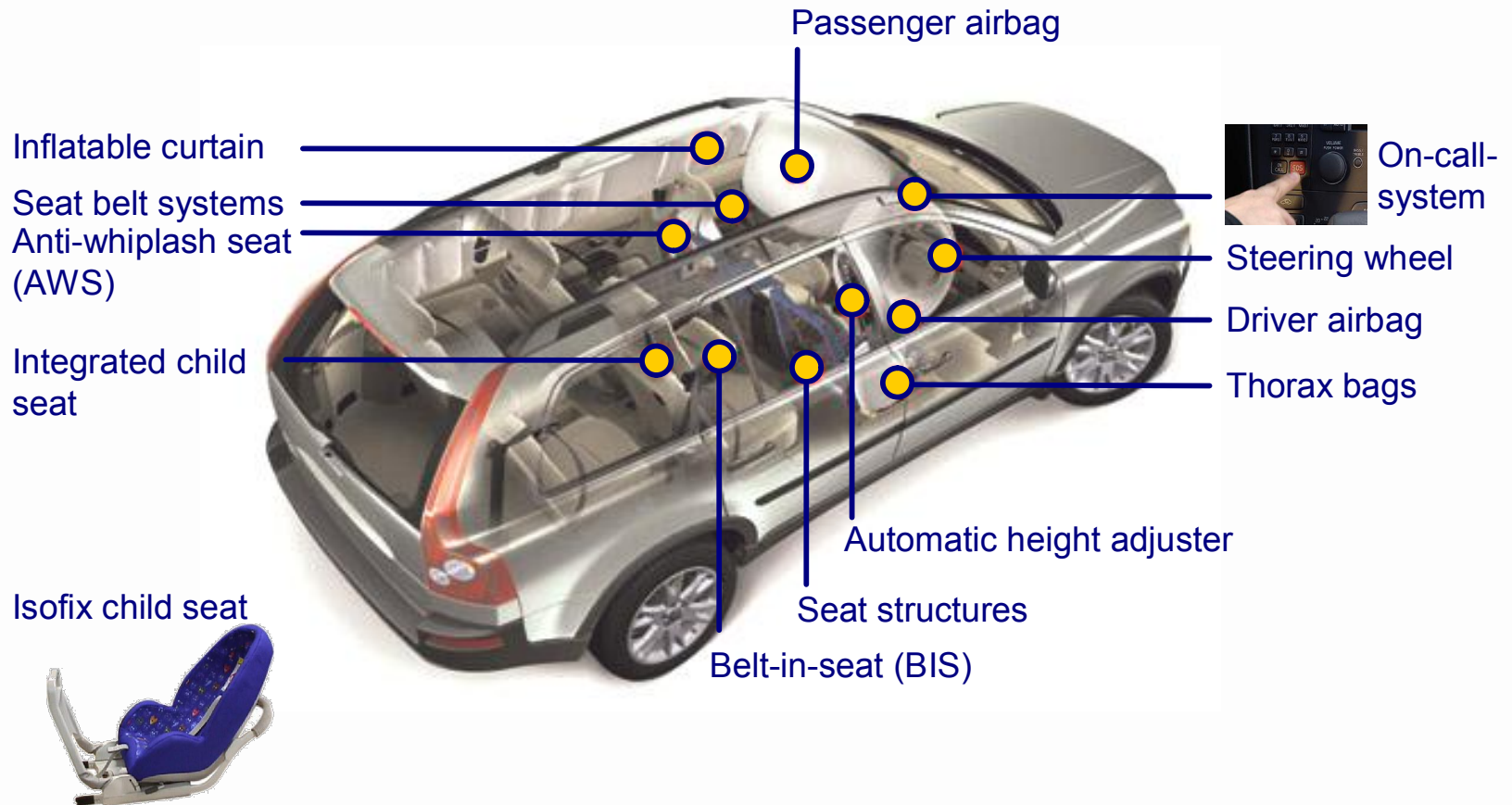


## **Autoliv AB**

Beginning in the early 1950's  
Autoliv AB pioneered seatbelt  
technology and products

# “One-Stop-Shop” for Auto Safety

## Integrated Safety Systems





# OTC

Ogden Technical Center  
Utah, USA



# ISO 14001 Certified

## October, 1998

















# Greenhouse Gas Protocol Initiative

[www.ghgprotocol.org](http://www.ghgprotocol.org)

## Multi-stakeholder partnership

- **Businesses**
- **Non-governmental organizations (NGOs)**
- **Governments**
- **World Resources Institute (WRI)**
- **World Business Council for Sustainable Development (WBCSD)**



Consumption of purchased electricity, heat, and/or steam using the emissions factor based methodology
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Cell color code:

User entry:
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Auto calculated value:

Note: Grey colored cells are protected to prevent formulas being inadvertently deleted. To unprotect the worksheet, select Protection from the Tools menu followed by Unprotect Sheet.

\* Please ensure that emission factor units in column B are consistent with activity data units in column A.

	Step 1	Step 2	Step 3
	A*	B*	C
Activity Data: Electricity, Heat, and/or Steam Purchase		CO <sub>2</sub> emission factor	Indirect CO <sub>2</sub> emissions in metric tons
			C = A * B / 1,000,000
kWh		grams CO <sub>2</sub> / kWh	metric tons CO <sub>2</sub>

Facility / source description			
Ogden / Rocky Mountain Power	6586476.00	386.60	2,546.33
Facility / source 2			0.00
Facility / source 3			0.00
Facility / source 4			0.00
Facility / source 5			0.00
Facility / source 6			0.00
Facility / source 7			0.00
Facility / source 8			0.00
Facility / source 9			0.00
Facility / source 10			0.00

<b>Step 4: Sum CO<sub>2</sub> emissions (in metric tons):</b>	2,546.33
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## Direct CO<sub>2</sub> Emissions from Fuel Use in Facilities

Color Key:

Standard label

User entry cells

Automatic calculation

Note: Grey colored cells are protected to prevent formulas being inadvertently deleted. To unprotect the worksheet, select Protection from the Tools menu followed by Unprotect Sheet. No password is required.

\* Please ensure that emission factor units in column D are consistent with activity data units in column B.

Year: 2006							
		A	B*	C	D*	E	F
Source description	Fuel type	Quantity of fuel consumed	Unit	CO <sub>2</sub> emission factor	kg CO <sub>2</sub> / unit	CO <sub>2</sub> emissions in kg	CO <sub>2</sub> emissions in metric tons
						E=AxC	
Furnaces	Natural Gas	5555.60	1000 ft^3	120.59	5.47	669,949.8	669.95
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00

Step 4: Sum CO<sub>2</sub> emissions:
669.95

Note: You can find emissions factors on the EFs\_Fuels page.



# Sample of Autoliv 2006 GHG Emissions

## GHG EMISSIONS 2006

Facility	Scope 1	Natural Gas	Scope 2	Electricity	Scope 3	Total
	Natural Gas	EF	Electricity	EF		(metric tons)
Auburn Hills (ATC)	471.48	120.59	3,323.17	740.3		3,795
Brigham City (IBC)	820.16	120.59	16,987.41	386.6		17,808
Columbia City (AWC)	1,265.45	120.59	5,121.74	892.0		6,387
Madisonville (ABK)	1,998.86	120.59	3,988.20	892.0		5,987
Module (AOA)	836.65	120.59	6,333.67	386.6		7,170
Ogden (OTC)	669.95	120.59	2,546.33	386.6		3,216
Promontory (PRO)	11,053.76	120.59	7,595.92	386.6		18,650
<b>AUTOLIV-US TOTAL</b>	<b>17,116.31</b>		<b>45,896.44</b>			<b>63,013</b>

all emissions are in units of metric tons

<b>Autoliv Operational Indicator 11 (Name)</b>							
Month: _____							
Year: _____							
<b>OPI 11A. CO<sub>2</sub> Emissions Generated by Heating with Fossil Fuels</b>							
<b>Conversion Factors:</b>							
1 Decatherm = 1,000 ft <sup>3</sup>							
1 kg = 2.2046 lb							
1 Metric ton = 2,204.6 pounds							
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>Fuel Type</b>	<b>Quantity of fuel consumed</b>	<b>Unit</b>	<b>CO<sub>2</sub> Emission Factor</b>	<b>Unit</b>	<b>lbs CO<sub>2</sub></b>	<b>kg CO<sub>2</sub></b>	<b>Ton CO<sub>2</sub> (metric)</b>
					E = A x C	F = E x (1/2.2046)	G = E x (1/2,204.6)
Natural Gas		1,000 ft <sup>3</sup>		lbs CO <sub>2</sub> / 1000 ft <sup>3</sup>	0	0.0	0.0
<b>OPI 11B. CO<sub>2</sub> Emissions generated by Purchased Electricity</b>							
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
<b>Source Description</b>	<b>Quantity of electricity consumed</b>	<b>Unit</b>	<b>CO<sub>2</sub> Emission Factor</b>	<b>Unit</b>	<b>lbs CO<sub>2</sub></b>	<b>kg CO<sub>2</sub></b>	<b>Ton CO<sub>2</sub> (metric)</b>
					E = A x C	F = E x (1/2.2046)	G = E x (1/2,204.6)
		kWh	0.852	lbs CO <sub>2</sub> / kWh	0	0.0	0.0